

Appl. No. 09/655,893

Attorney Docket No. 10541-2085

II. Remarks

Reconsideration and re-examination of this application in view of the above amendments and the following remarks is herein respectfully requested.

After entering this amendment, claims 9-29 remain pending.

Objection to the Title, Specification and Drawings

The examiner objected to the Title, Specification and Drawings of the application. The examiner is reminded that the examiner had previously made similar objections to the Title, Specification and Drawings in a February 25, 2005 Office Action. The Applicants amended the application to obviate the examiner's objections in an April 21, 2005 reply which was requested to be entered in the Request for Continued Examination filed May 25, 2005. The examiner's attention is therefore directed to that prior amendment in response to these objections, which, in view thereof, are believed to be moot and should be withdrawn.

Claim Rejections - 35 U.S.C. § 112

Claims 9-21 were rejected under 35 U.S.C. § 112, second paragraph, as being for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention. More specifically, the examiner states it is not known what "a first pre-circuit assembly" is in claim 14, lines 3-4.

The examiner is reminded that the same rejection was made in a February 25, 2005 Office Action and that Applicants amended the application to obviate the examiner's rejection in the April 21, 2005 reply, which was requested to be entered in the Request for Continued Examination filed May 25, 2005. The



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examiner's attention is therefore directed to that prior amendment in response to this rejection.

Additionally, the examiner also states the phrase "a second pre-circuit assembly including a second conductive layer" in claim 8, lines 3-4 is not clear as to whether "a second pre-circuit assembly" has an associated "second conductive layer" connected. As with the prior §112 rejection, this rejection has also been previously dealt with, and the examiner's attention is similarly directed.

Accordingly, it is believed that these §112 rejections are moot and should be withdrawn.

Allowable Subject Matter

The examiner's indication that claim 9 would be allowable if rewritten in independent form is gratefully acknowledged. Claim 9 is now presented in independent form as claim 22. Claims 23-29 are also newly presented and are all dependent on claim 22. These dependent claims are allowable for at least the same reasons as claim 22.

Claim Rejections - 35 U.S.C. § 102(b)

Claim 14 was rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,801,338, to Akiyama et al. ("Akiyama"). Applicant respectfully traverses these rejections.

The examiner states that Akiyama discloses a method for connection within a multi-layer circuit board including a first pre-circuit assembly having a first conductive layer and a second pre-circuit assembly having a second conductive

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layer, the method comprising: forming an aperture within said first pre-circuit assembly, aligning the second pre-circuit assembly with the first pre-circuit assembly, attaching the first pre-circuit assembly to the second pre-circuit assembly, and inserting conductive material into the aperture to connect the first portion of the second conductive layer to the first conductive layer. Thus, Akiyama teaches a conductive material *initially* being placed between the first conductive layer and the second conductive layer and that portions of this conductive material are removed in a later manufacturing process.

Applicants' invention differs from Akiyama in that the present invention requires forming an aperture within the first pre-circuit assembly and aligning the aperture with the second pre-circuit assembly such that the first portion of the conductive layer of the second pre-circuit assembly resides above the aperture. Afterwards, the first pre-circuit assembly is attached to the second pre-circuit assembly. Finally, the conductive material is inserted into the aperture to connect the first portion of the second conductive layer to the first conductive layer. *In Akiyama, the conductive material is placed between the first conductive layer and second conductive layer at an earlier stage and not into the aperture as claimed.*

Claim 14 was rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,404,059 to Livshits et al. ("Livshits"). Applicant respectfully traverses these rejections.

The examiner stated that layer 21 of Livshits represents the claimed conductive material of the present invention. Applicants respectfully point out that, reference numeral 21 of Livshits refers to a *layer of varnish that is applied after assembly of the integrated circuits*. This layer of varnish is specifically disclosed

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in Livshits as being non-conductive. The varnish layer 21 therefore cannot be the conductive material of the claimed invention.

From this, it is submitted that Akiyama and Livshits fail to disclose each and every limitation of the present invention and the rejections based thereon should be withdrawn.

Claim Rejections - 35 U.S.C. §103(a)

Claims 15-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Akiyama et al. ("Akiyama") or Livshits et al. ("Livshits"). Applicant respectfully traverses this rejection.

With respect to claims 15-21, these claims are dependent on claim 14 and are patentable for at least the same reasons as given above in support of claim 14. Accordingly, allowance of these claims is respectfully requested.

Conclusion

In view of the above amendments and remarks, it is respectfully submitted that the present form of the claims are patentably distinguishable over the art of record and that this application is now in condition for allowance. Such action is requested.

Respectfully submitted,

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Date


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